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(54) MANUFACTURING METHOD OF SUBSTRATE FOR EPITAXIAL GROWTH AND
MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE USING SUBSTRATE FOR THIS
EPITAXIAL GROWTH

(57)Abstract:

PROBLEM TO BE SOLVED: To efficiently and easily obtain a substrate for epitaxial growth of a GaN compound semiconductor monocrystal membrane which has little crystal defect and favorable surface morphology.

SOLUTION: This method comprises at least the steps of (a) epitaxially growing a first GaN compound semiconductor monocrystal membrane 303 on a bulk crystal substrate 301; (b) epitaxially growing a GaN compound semiconductor monocrystal membrane 304 containing In; (c) epitaxially growing a second GaN compound semiconductor monocrystal membrane 305; and separating a second GaN compound semiconductor monocrystal membrane 305 from the bulk crystal substrate 301 and making it the substrate for the epitaxial growth.

